

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 8, 2008

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TO: Internal File

FROM: Stephen J. Demczak *SD by an*

RE: Minor Exploration – Winter Quarters, Ark Lands, Skyline Mine, C/007/0005
Task ID #3024

SUMMARY:

Ark Land Company (a subsidiary of Arch Coal Inc.) has submitted a Notice of Intent to Conduct Minor Coal Exploration on behalf of Skyline Mine. Five drilling sites will be located on Fee land. Two holes will be drilled on the (Allred Family Trust) fee land and three holes will be drilled on the Liodakis family land. The coal lease belongs to Canyon Fuel Company. A helicopter will be used for transportation of drilling equipment. The staging area will be on fee ground. Personnel may access the site by helicopter, horseback, or on foot. The drilling is scheduled for September 15, 2008. The reclamation will take place once the exploration is finished approximately four weeks from the beginning of the drill program.

EXPLORATION TECHNICAL ANALYSIS:

COAL EXPLORATION

Regulatory Reference: R645-200.

SCOPE AND RESPONSIBILITIES

Regulatory Reference: 30 CFR 772.1; 30 CFR 772.10; 30 CFR 772.11; R645-100-400; R645-200-100; R645-200-200; R645-201-100.

Analysis:

Ark Land Company (a subsidiary of Arch Coal Inc.) has submitted a Notice of Intent to Conduct Minor Coal Exploration on behalf of Skyline Mine. The permittee will remove approximately 60 lb of coal from the total of the five drill holes. This drill hole will be located on Fee Land. This exploration action is under the jurisdiction of the Division of Oil, Gas and

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Mining.

Findings:

The applicant has submitted the necessary information to meets the minimum requirements of this section.

REQUIREMENTS FOR NOTICE OF INTENTION TO CONDUCT MINOR COAL EXPLORATION

Regulatory Reference: 30 CFR 772.10; 30 CFR 772.11; R645-100-412; R645-201-200.

Analysis:

The applicant has submitted the appropriate information such as name, address, phone number and contact person.

The applicant has submitted the location of the one drill hole and the Right of Entry (access agreement) information from the landowner.

A timeline was given with the start-up of September 15, 2008 and the site will be reclaimed four weeks afterwards.

Findings:

The applicant has met the minimum requirements of this section.

COMPLIANCE DUTIES

Regulatory Reference: 30 CFR 772.13; R645-202.

OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100.

Analysis:

Biology

Roads

The no new roads will be constructed. Access will be by existing roads, foot, horseback, or via helicopter.

Topsoil

Minor excavation will be used to level the drill rig all by handwork. This topsoil will be stored on site. The topsoil will be used for reclamation. The reclamation will be to the original contours of the ground. The topsoil areas will be seeded

Diversions of Overland flows and streams

There will be no diversion of overland flow. The applicant has received a temporary water right change to use near by water for drilling.

Hydrologic Balance

The water from drilling will not be in contact with the surface ground or surface waters. The water will be stored in a confined tank. The ground will be covered with brattice cloth. There should be no harm to the hydrologic balance.

Acid- or toxic forming materials

All drilling fluids and cutting will be stored in a tank and removed from the drilling site.

Findings:

The applicant has met the minimum requirements of this section.

RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

Analysis:

Approximate original contour

The applicant will reclaim the drill pad to approximate original contours.

Revegetation

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The applicant will seed areas of disturbance with the approved Division seed mix used in other drilling projects in this area.

Boreholes

The borehole will be reclaimed using cement/bentonite slurry. The full depth of the hole will be reclaimed using this mixture. A brass tag will be placed on top of the hole stating the applicant name, drill hole number and legal description.

Facilities and Equipment

All drilling equipment will be removed once it is no longer needed. There will be no facilities at this drill site.

Findings:

The applicant has met the minimum requirements of this section.

PUBLIC AVAILABILITY OF INFORMATION

Regulatory Reference: 30 CFR 772.15;R645-203.

Analysis:

The applicant has requested this information to remain confidential to the public.

Findings:

The applicant has met the minimum requirements of this section.

RECOMMENDATIONS:

It is recommended that the Notice of Intent to be approved.